

FIG. 1

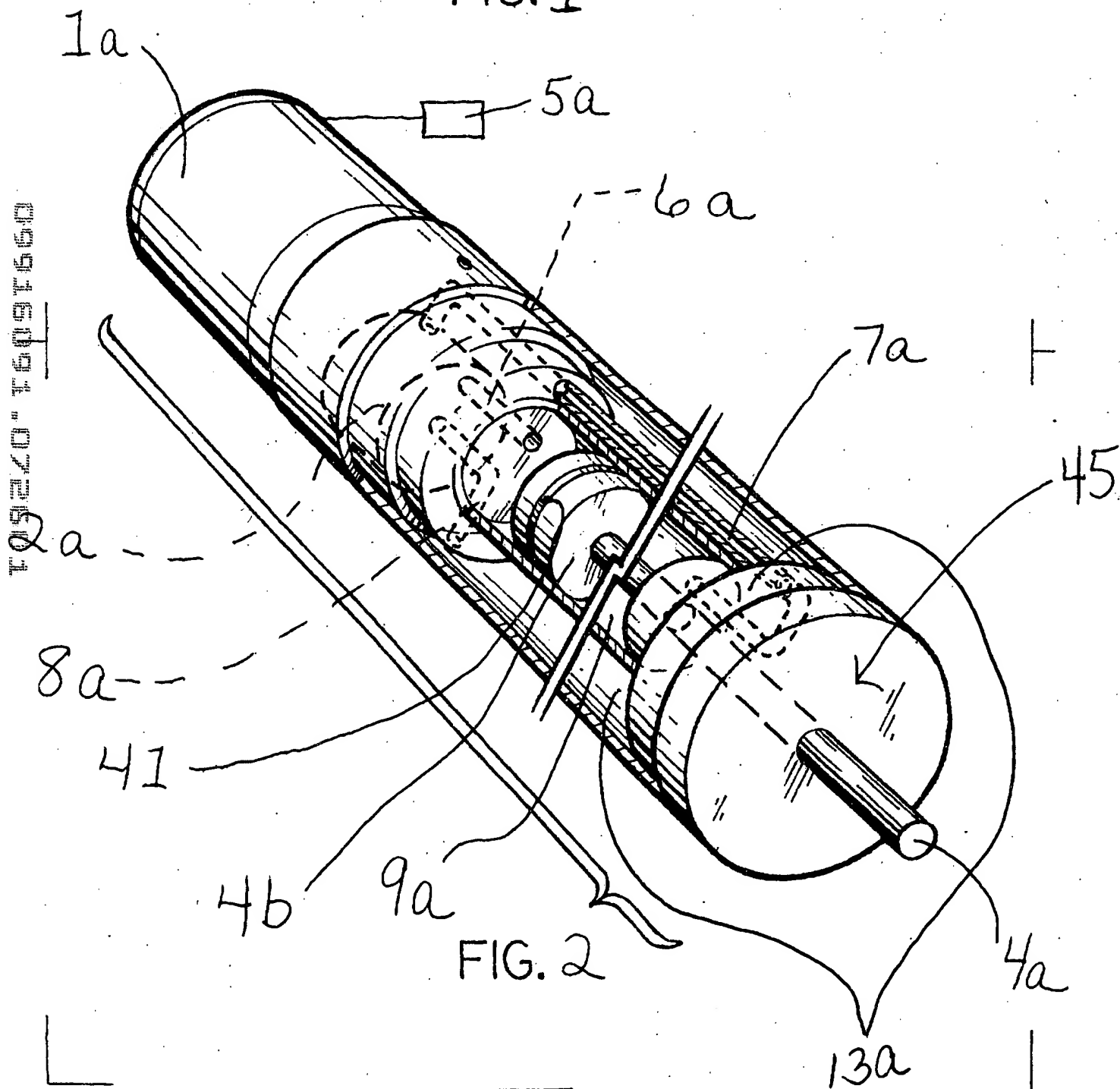
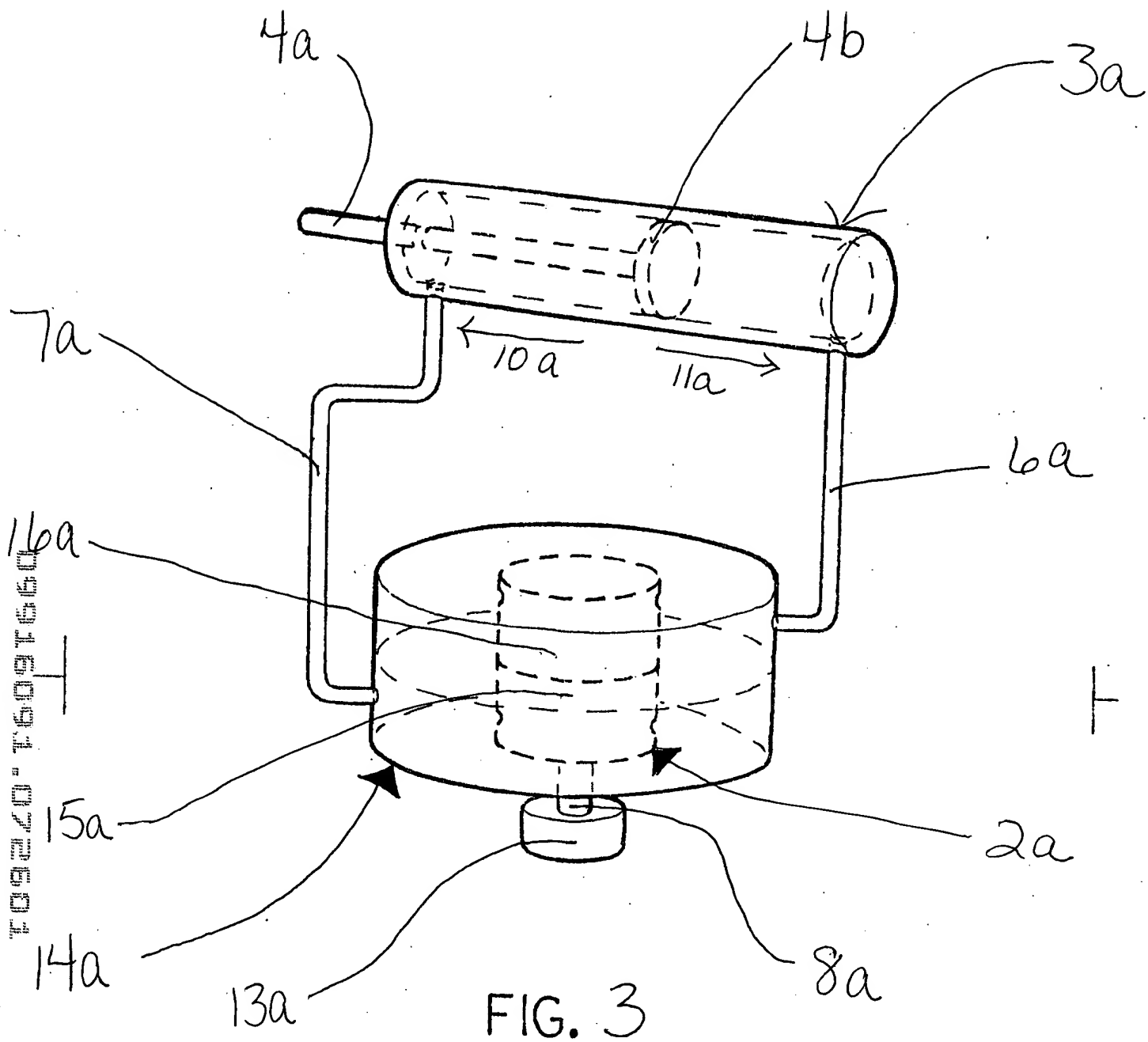


FIG. 2

0916091.072501



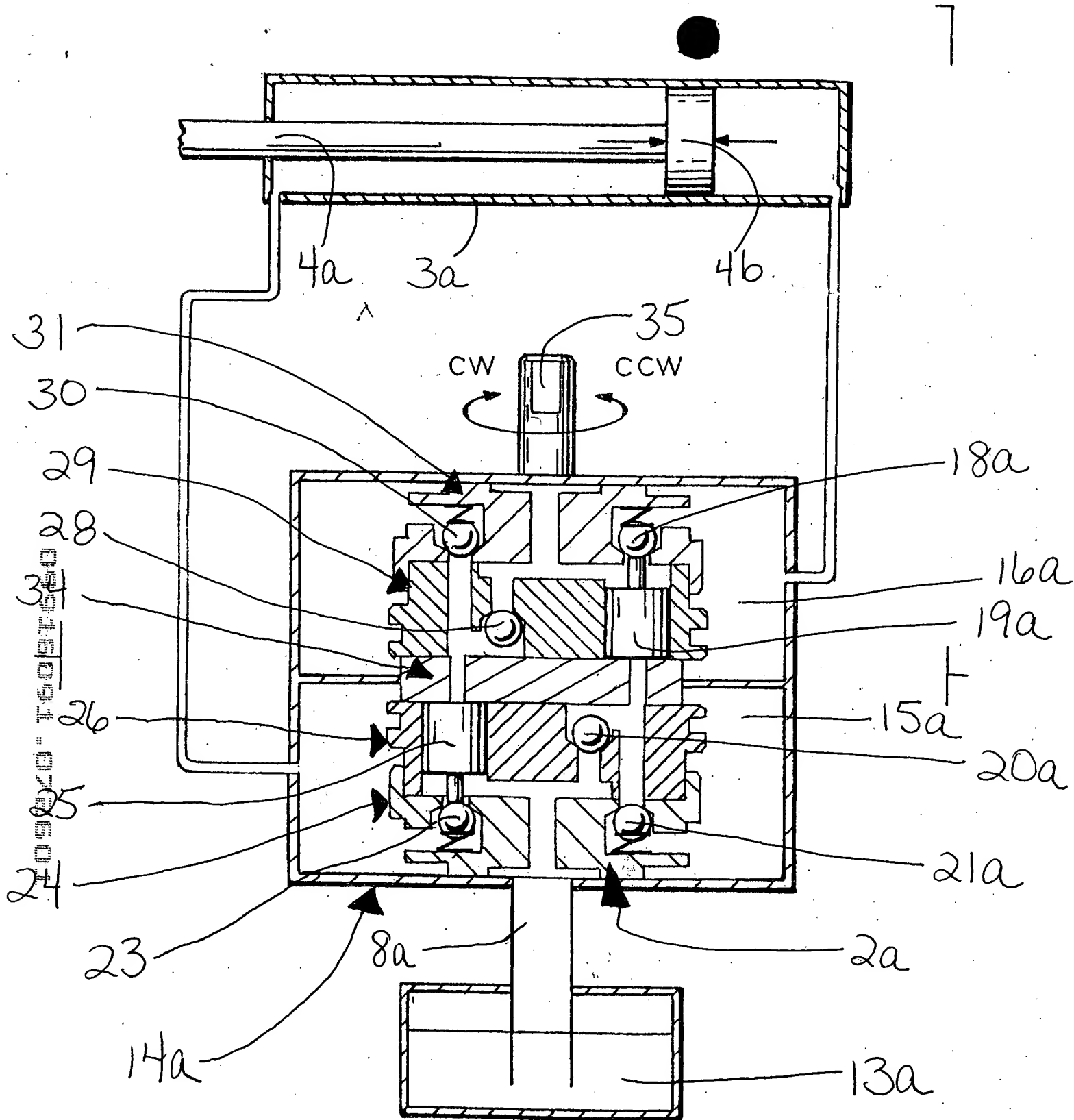


FIG. 4

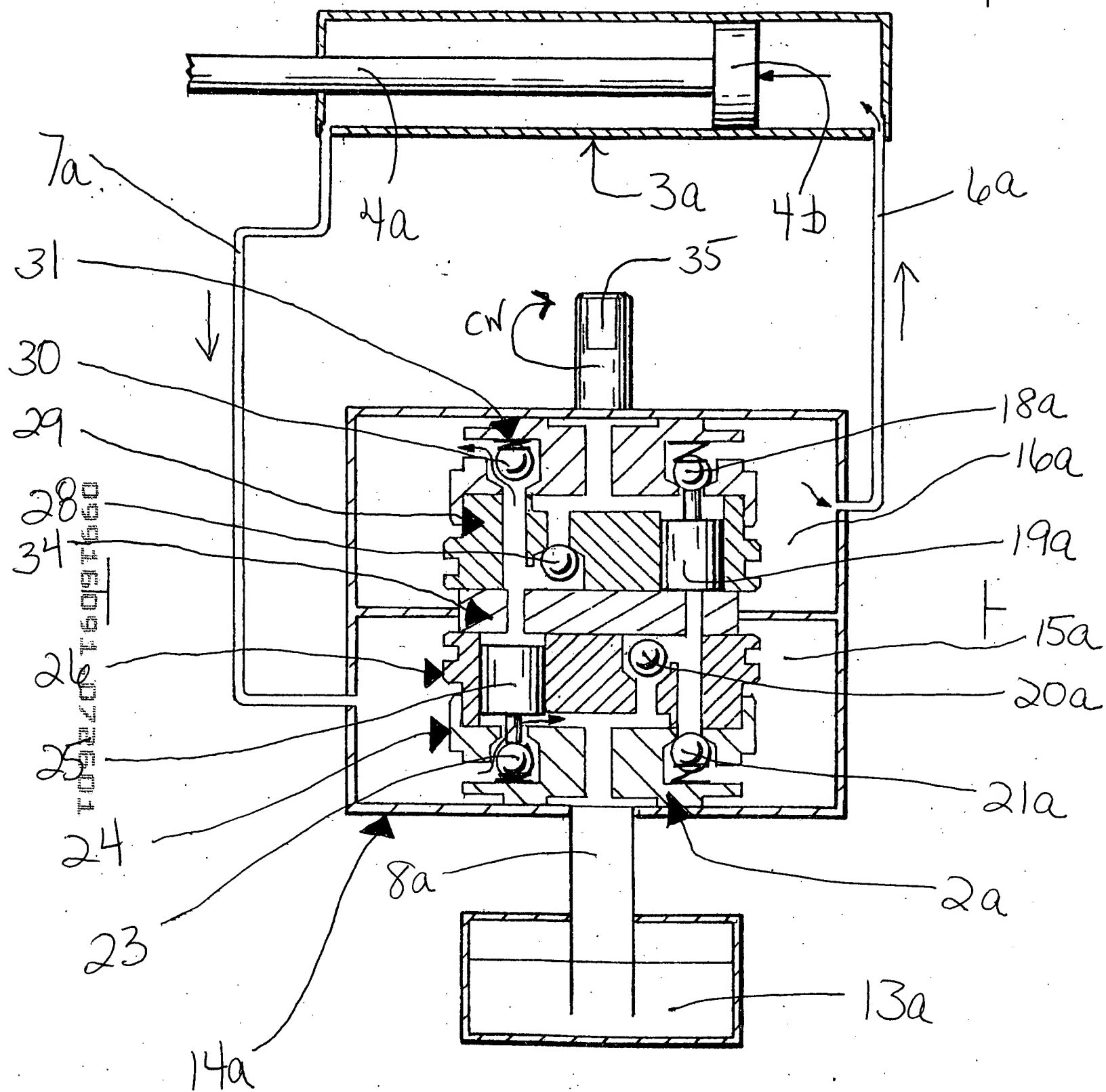


FIG. 6

09:16:01.072601

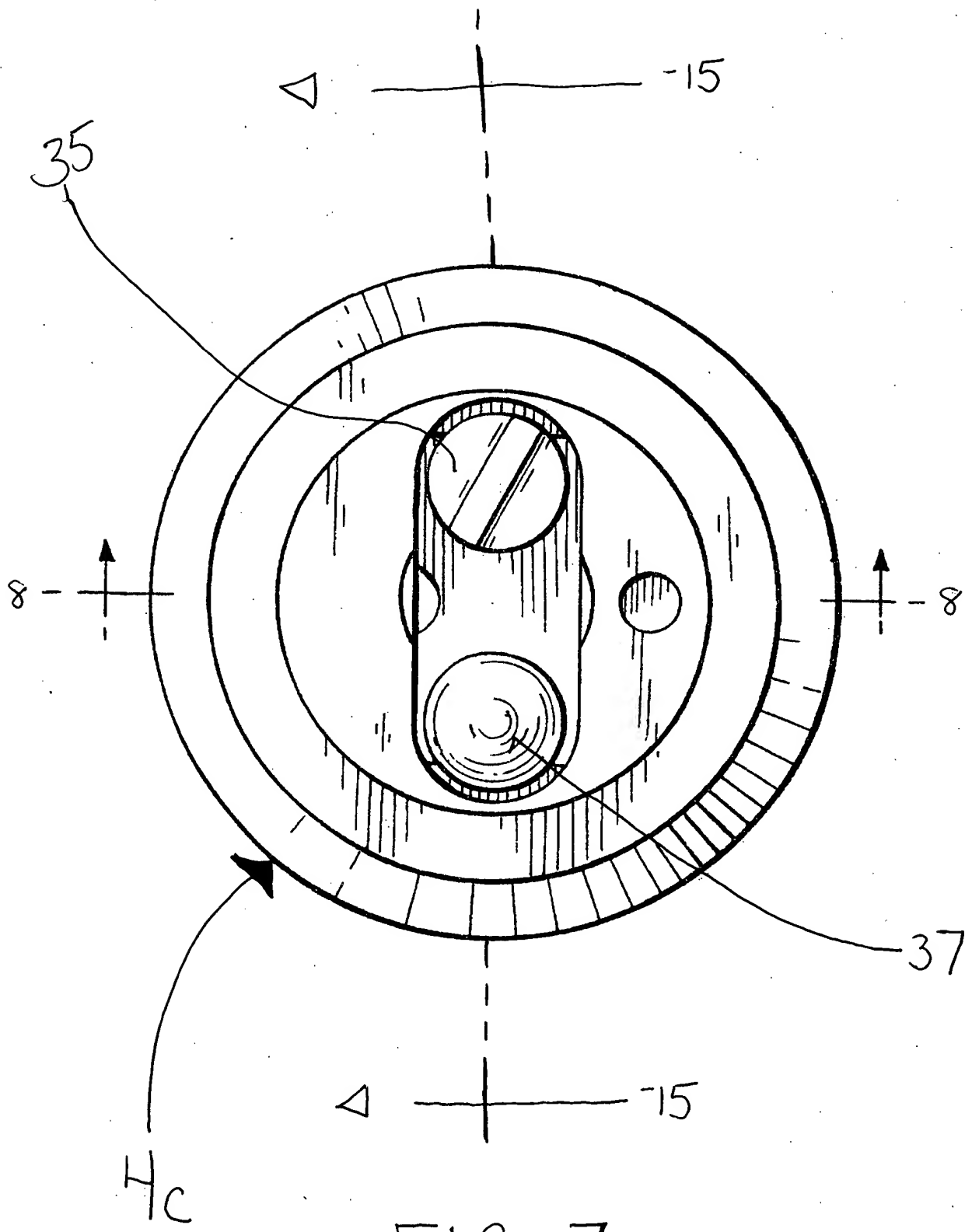
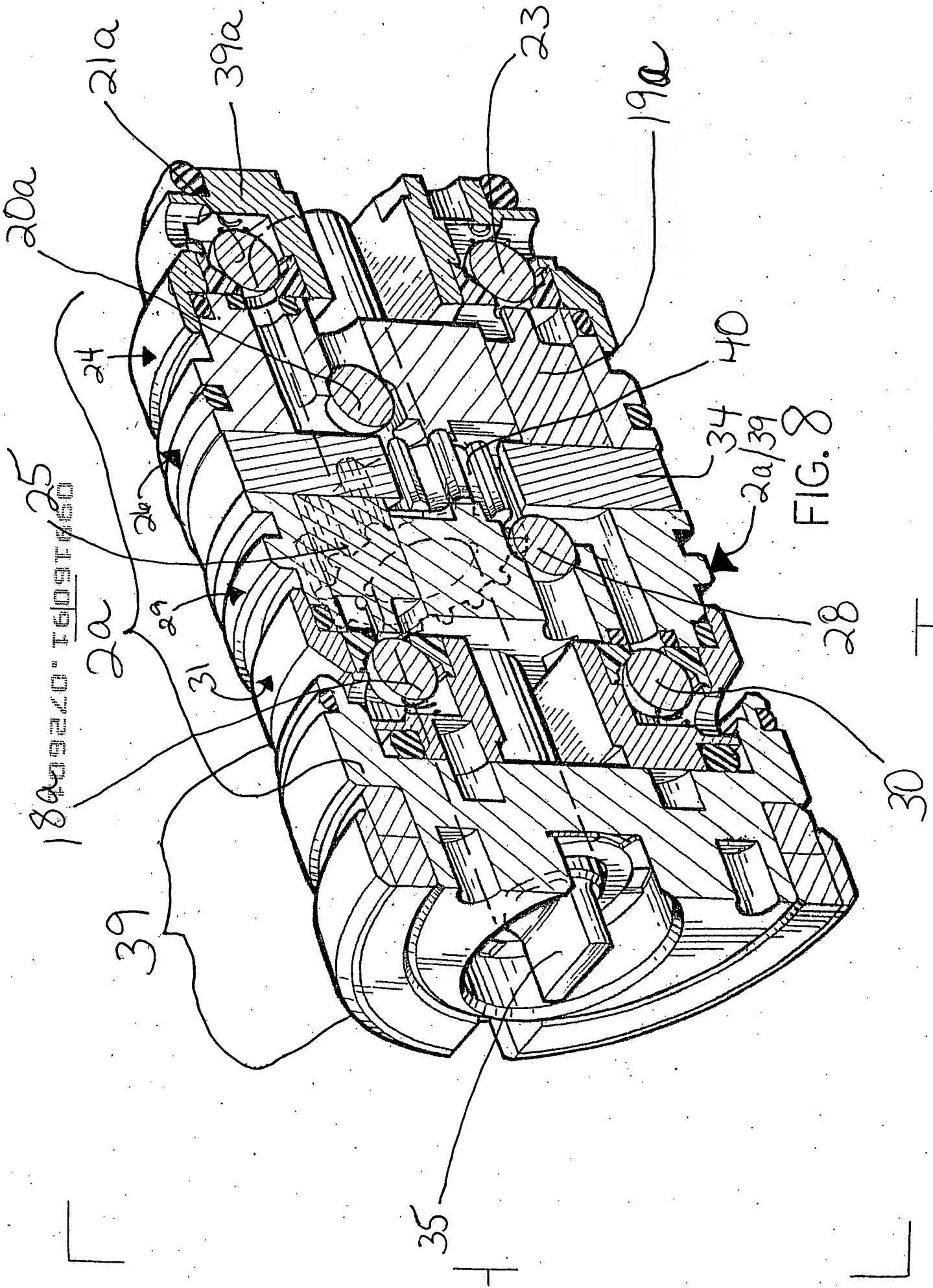
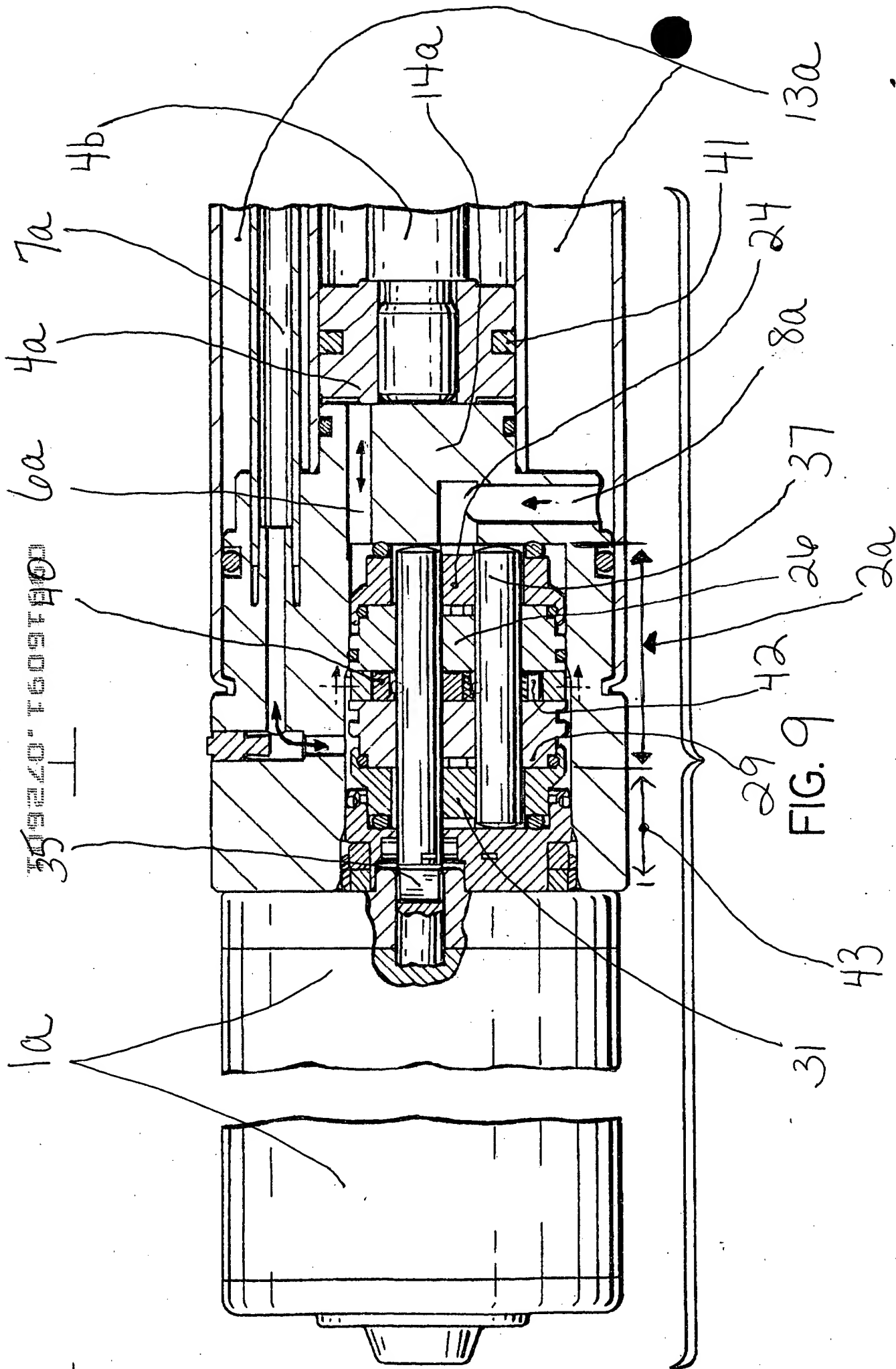


FIG. 7





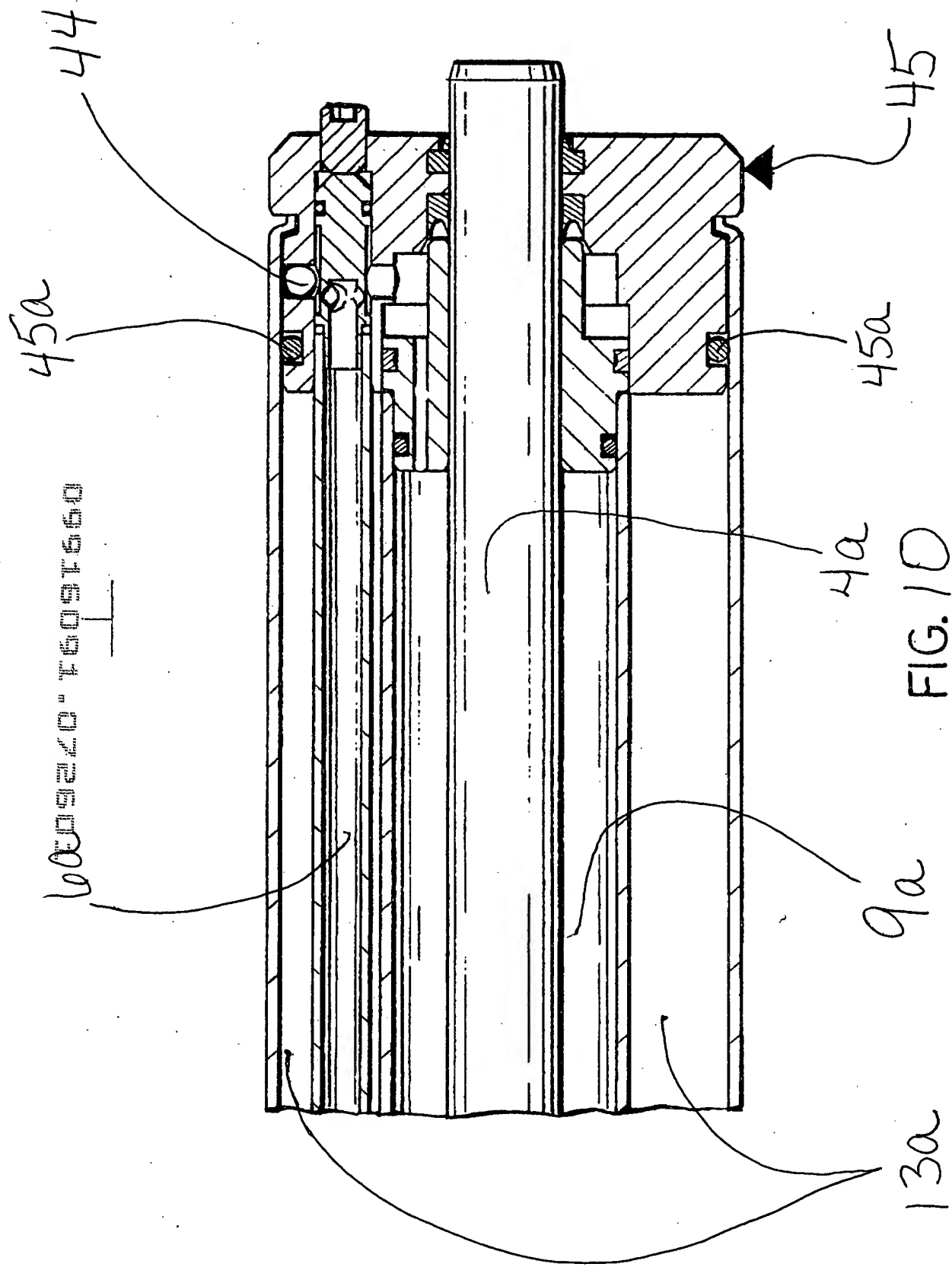


FIG. 10

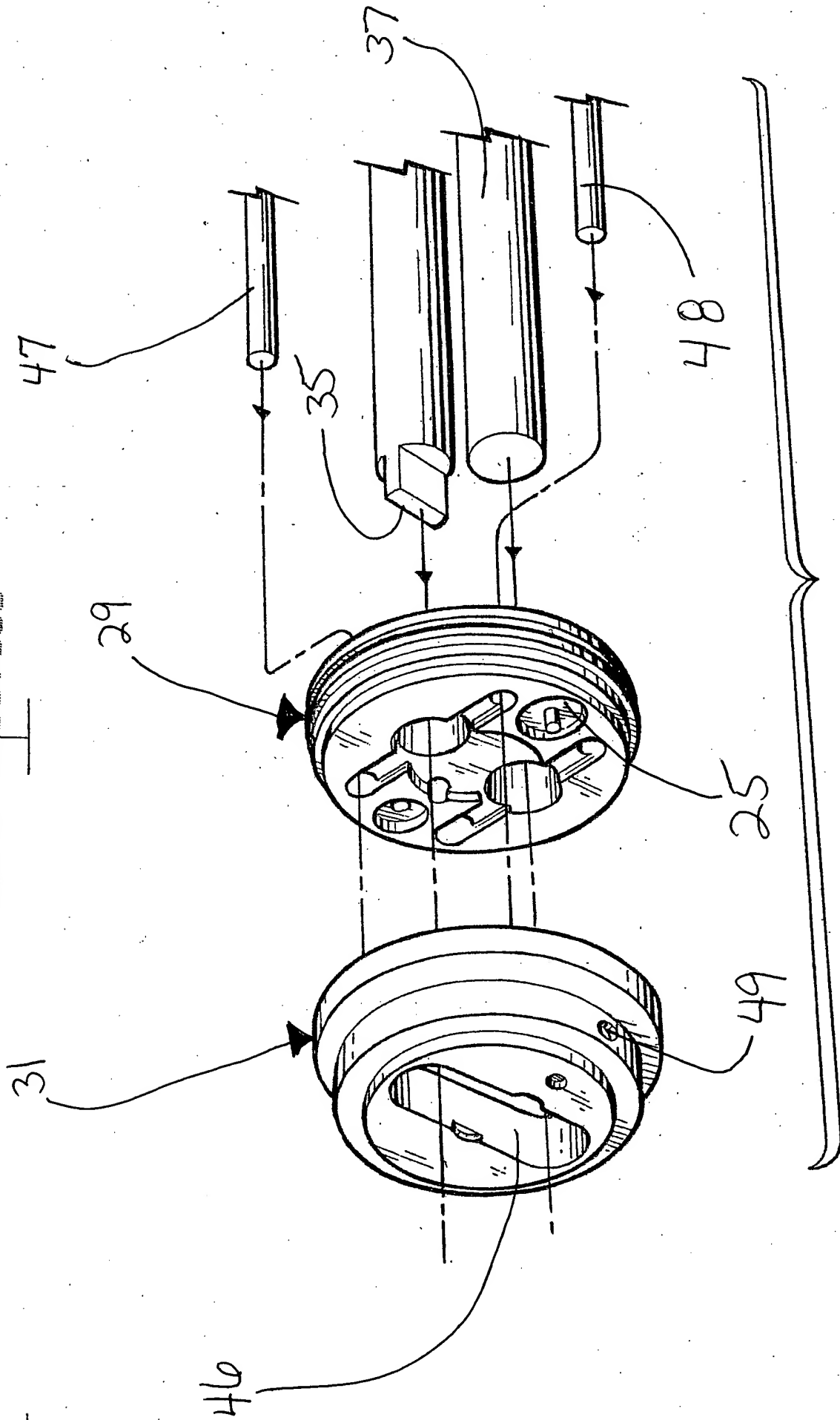


FIG. 11

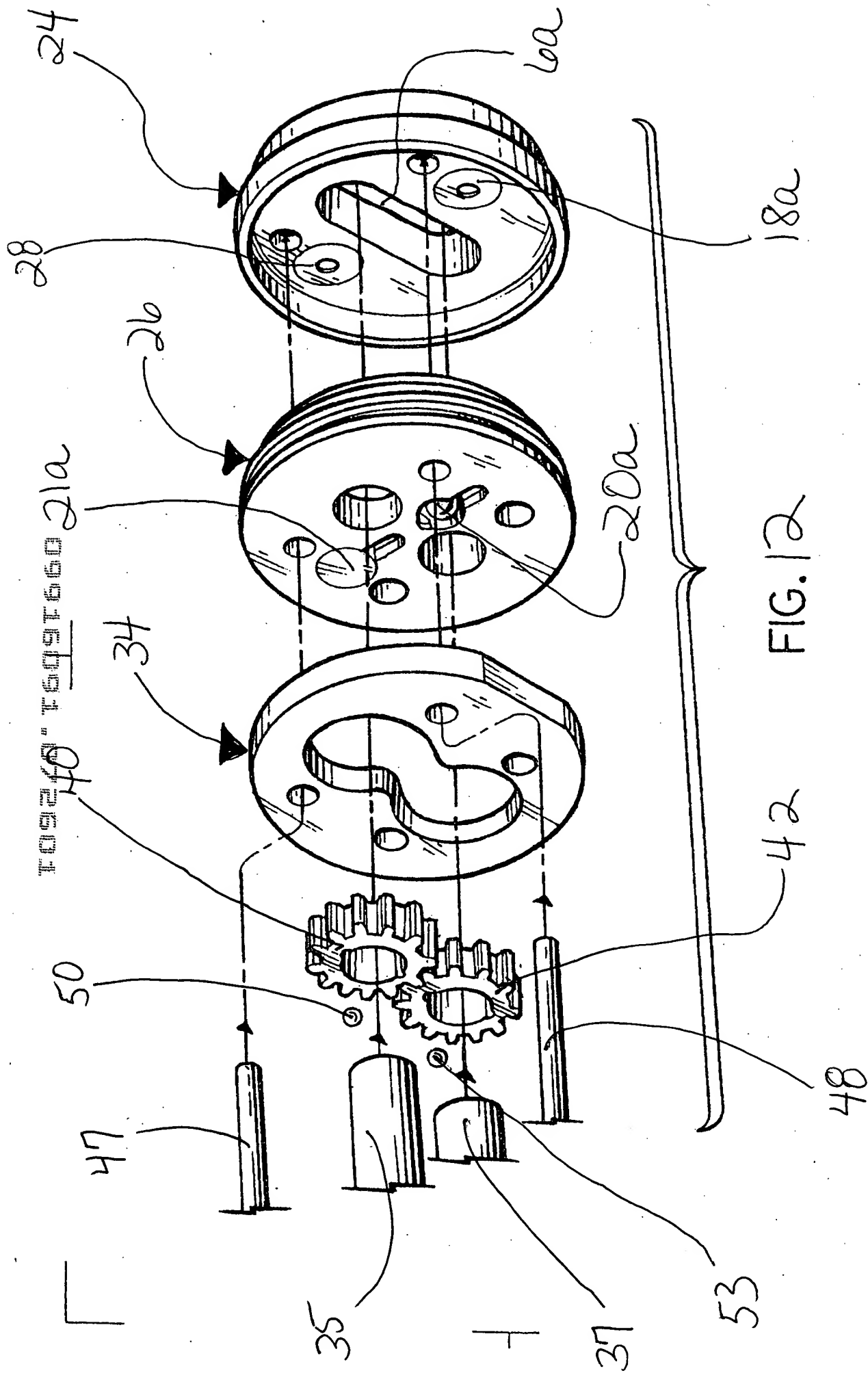
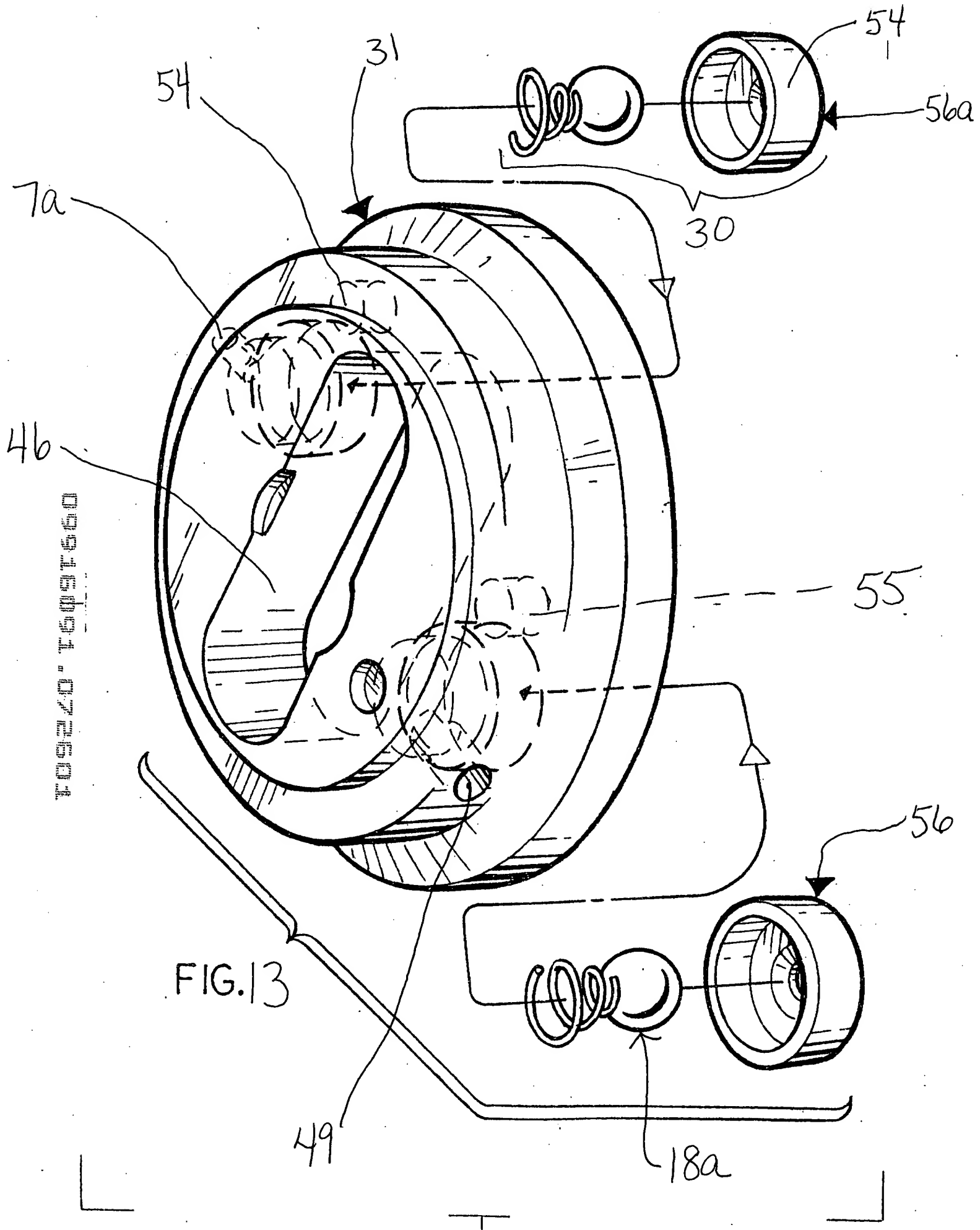


FIG. 12



09915091.072604

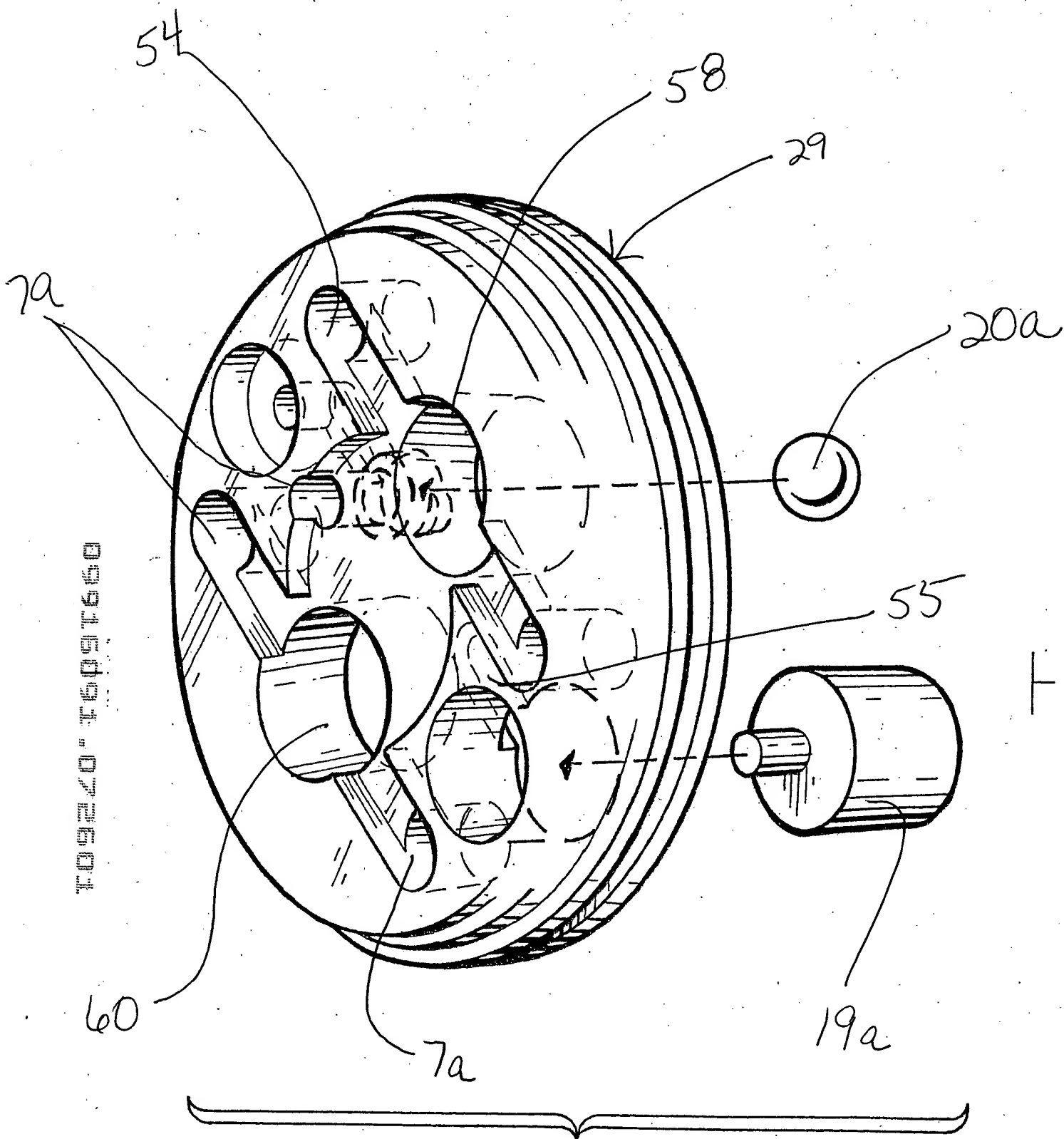
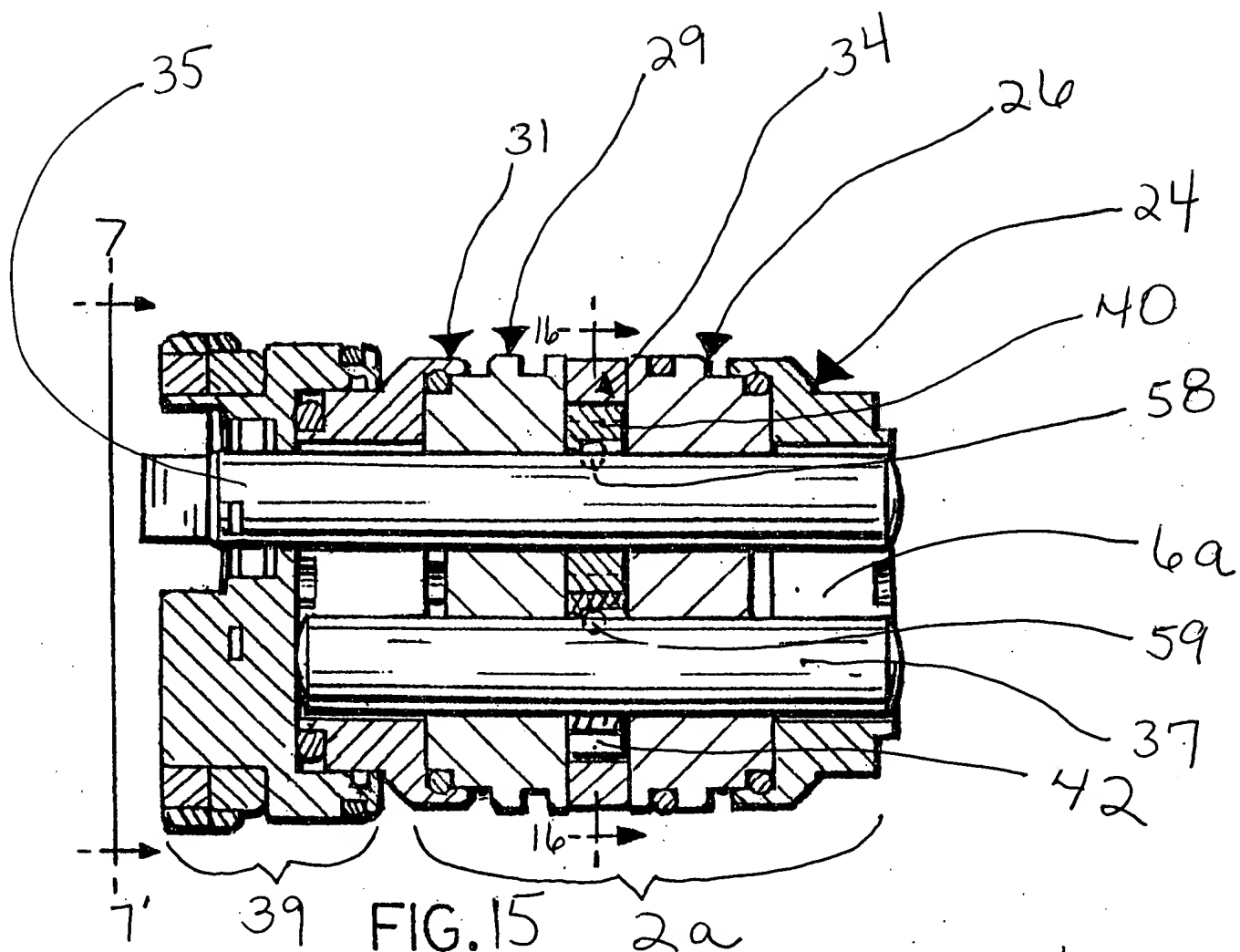


FIG. 14

09916091.072601



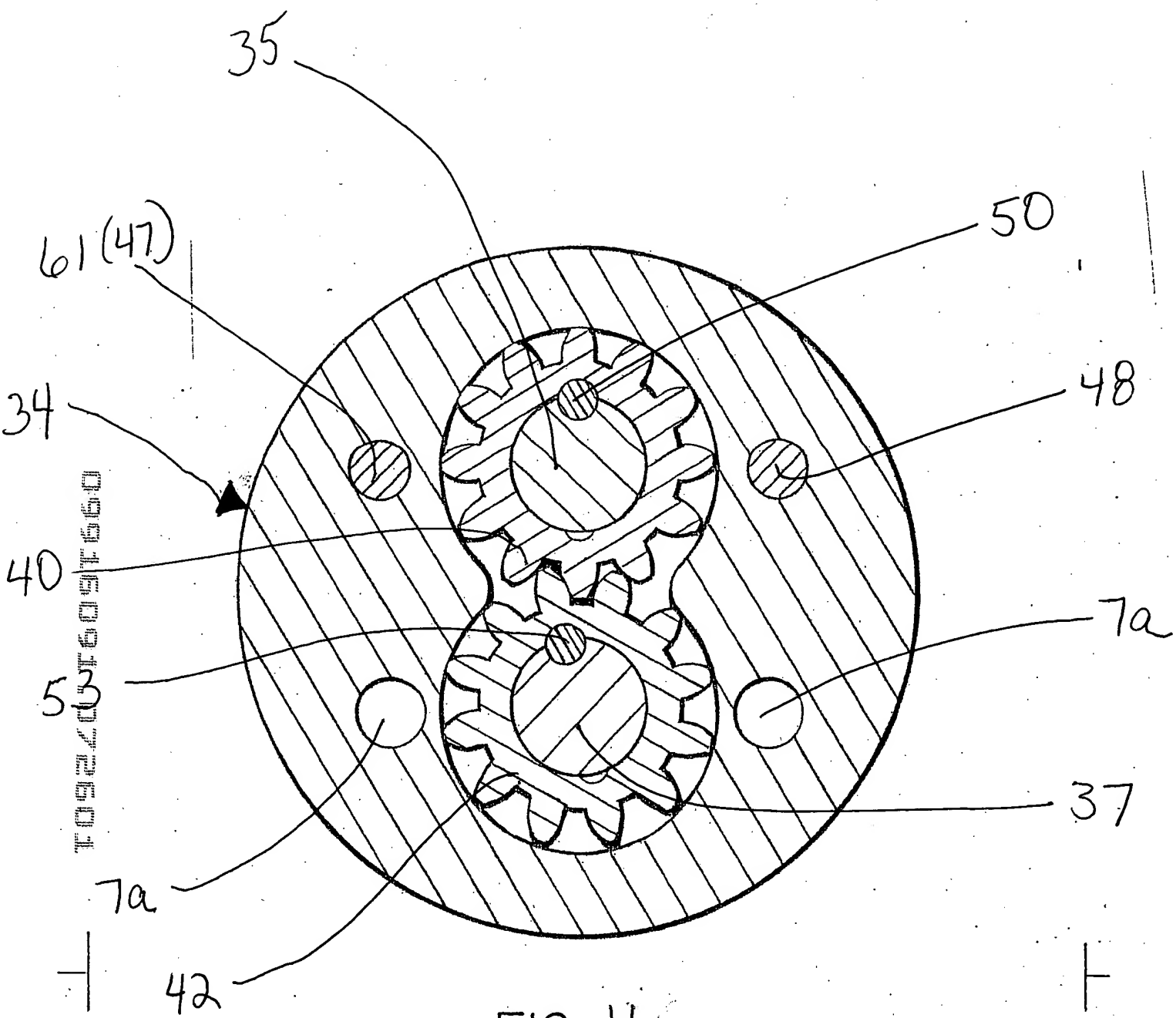


FIG. 16

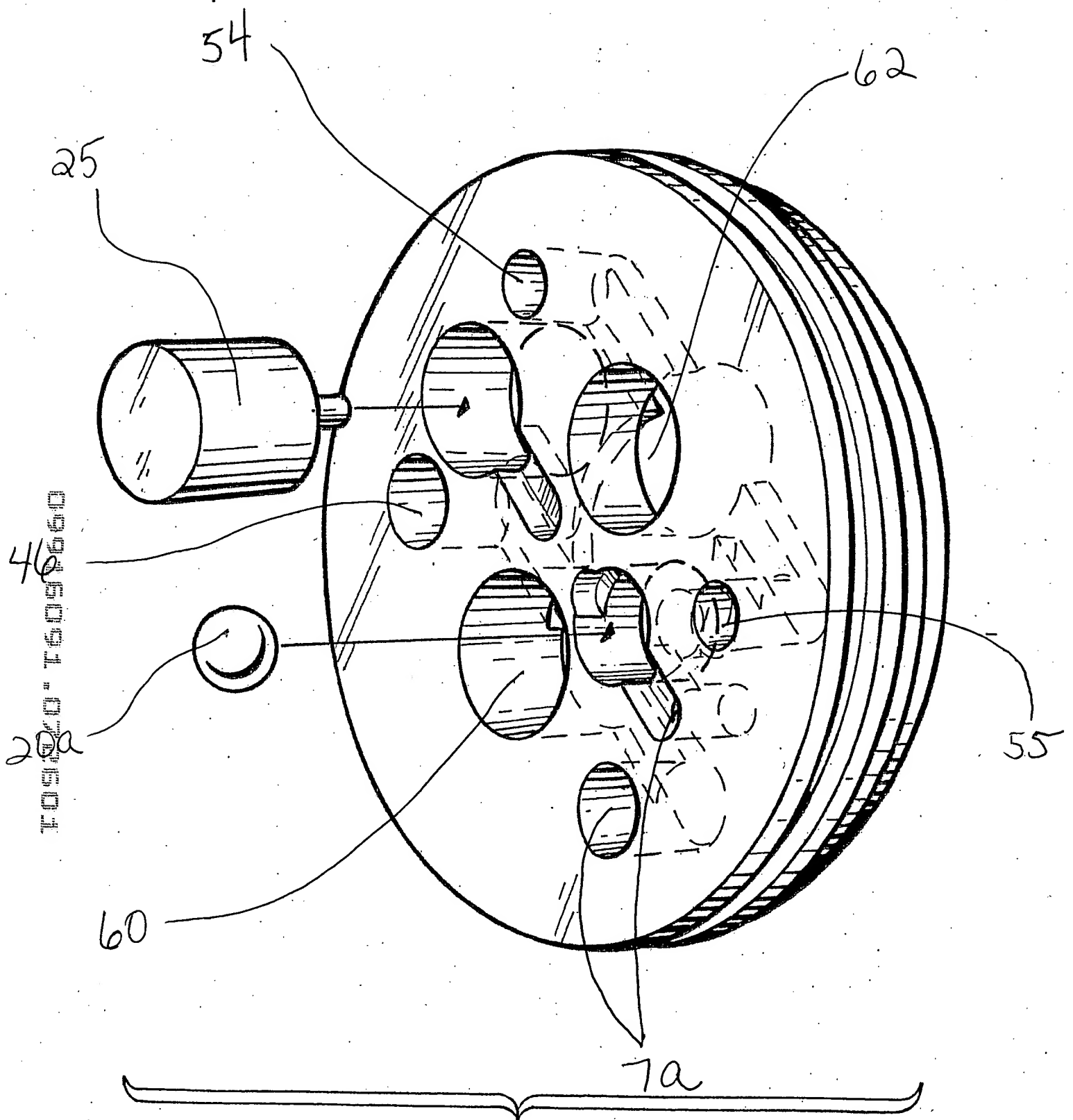


FIG. 17

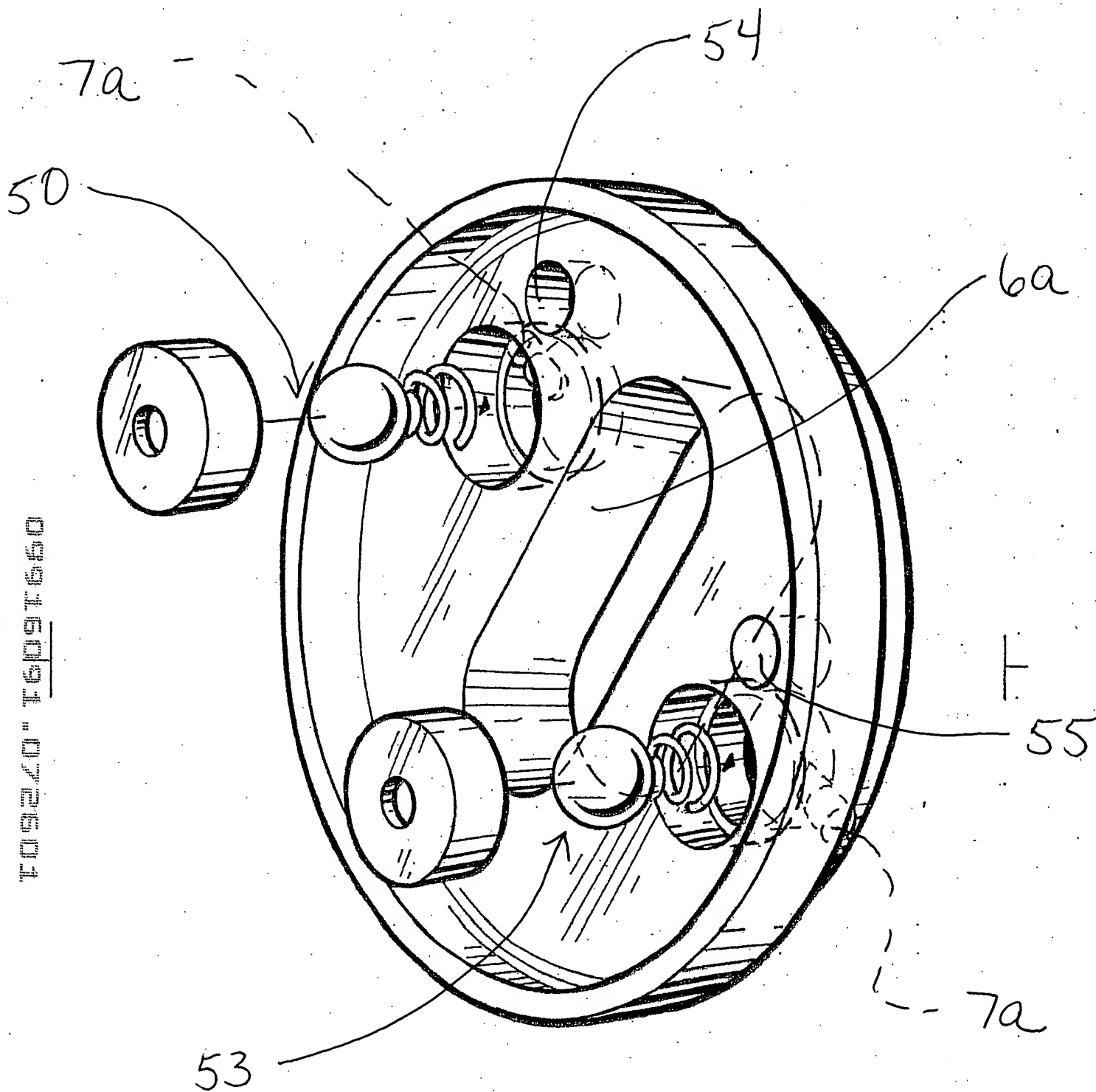
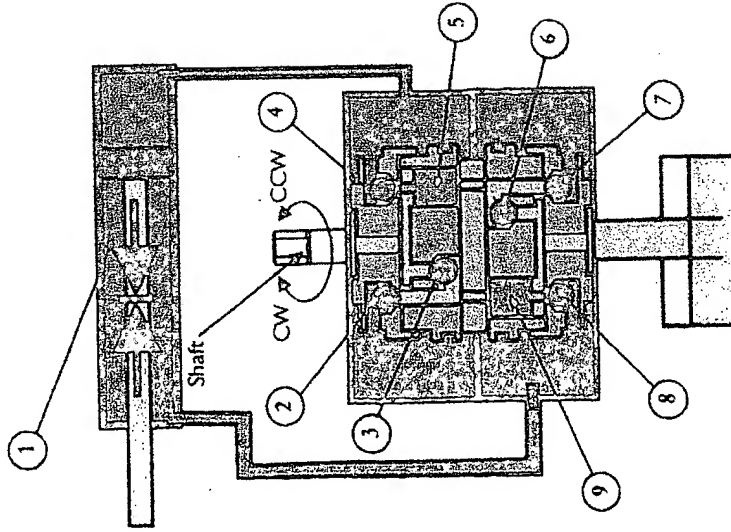


FIG. 18

DOUBLE ACTING BI-ROTATIONAL PUMP

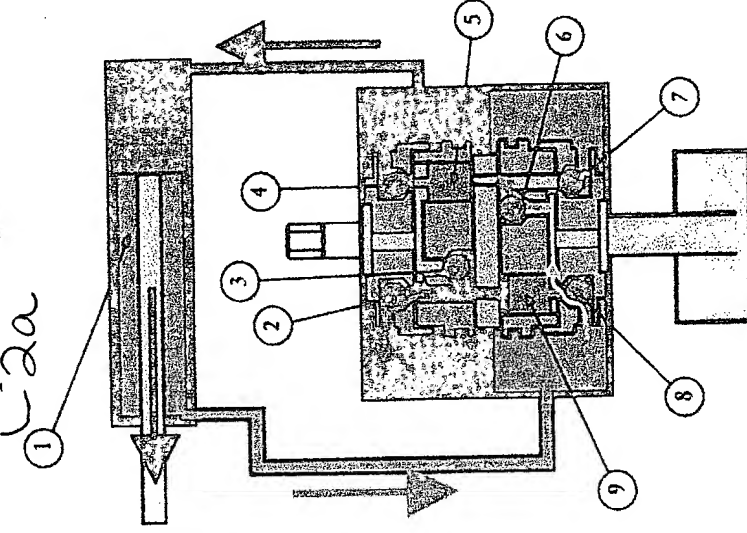
LOCKED - 3a

Actuator hydraulically locked in position



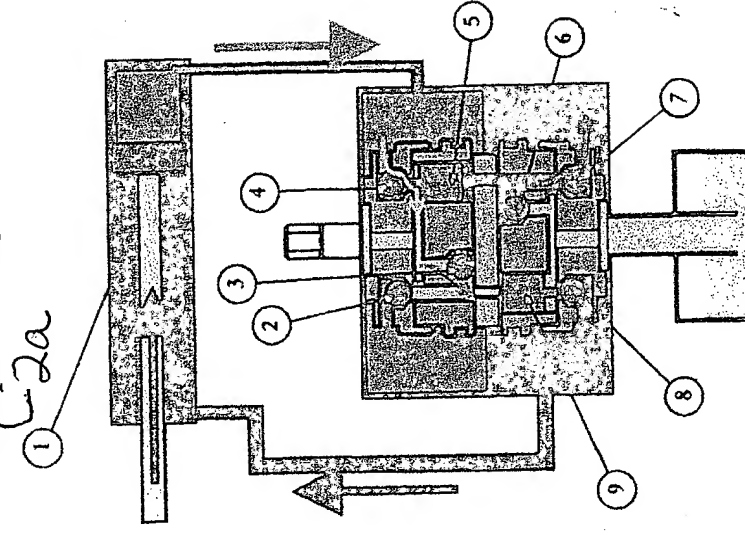
EXTEND - 10a

Pump rotating clockwise



RETRACT - 11a

Pump rotating counter clockwise



- Fluid connected to tank
- Fluid locked in between actuator and pump
- Fluid in return to tank, low pressure
- Fluid high pressure working actuator

- 1. Hydraulic actuator
- 2. Check vlv out for extend
- 3. Suction check vlv for retract
- 4. Pilot check vlv for retract
- 5. Retract pilot piston

- 6. Suction check vlv for extend
- 7. Check vlv for retract
- 8. Pilot check vlv for extend
- 9. Extend pilot piston

FIG. 20

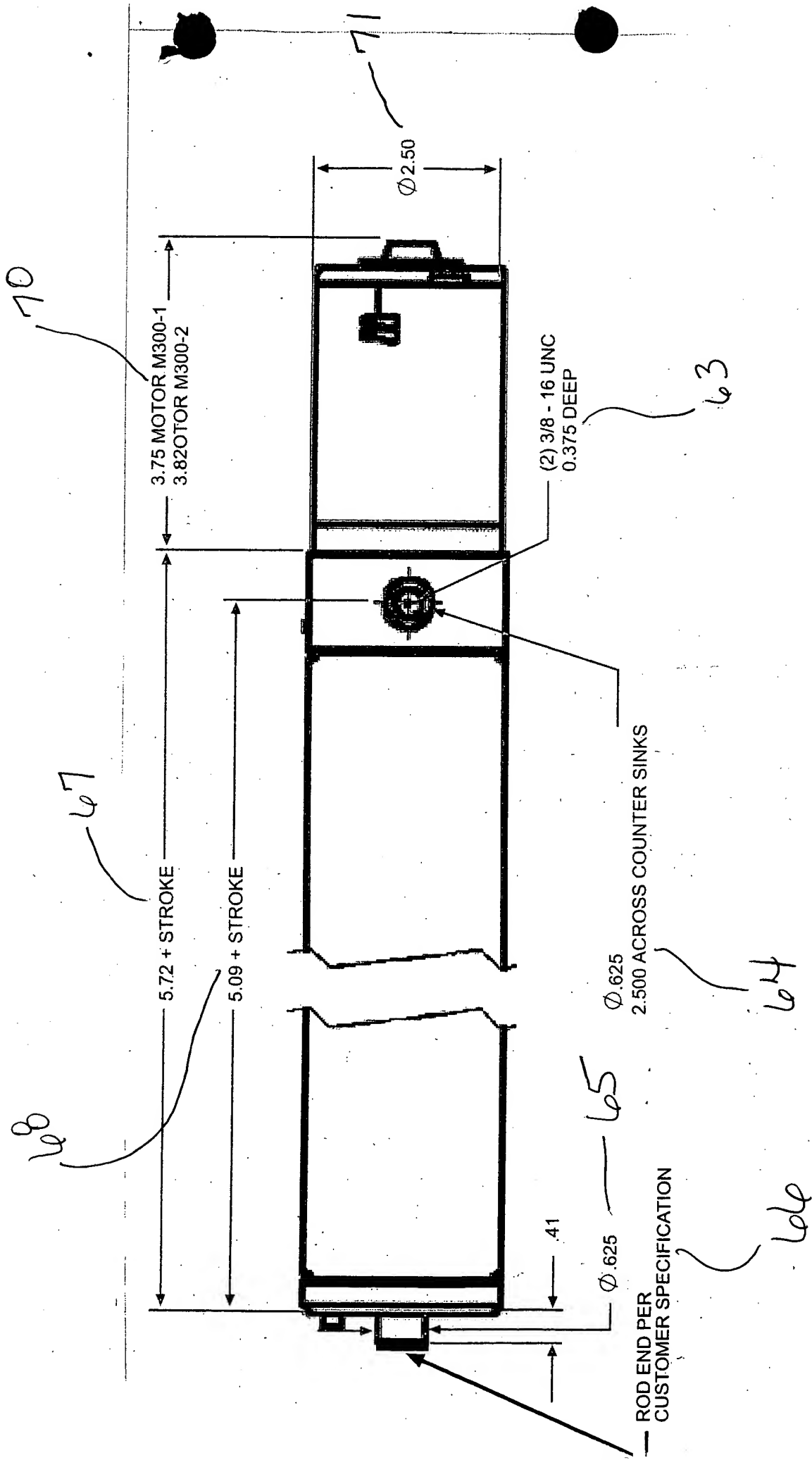
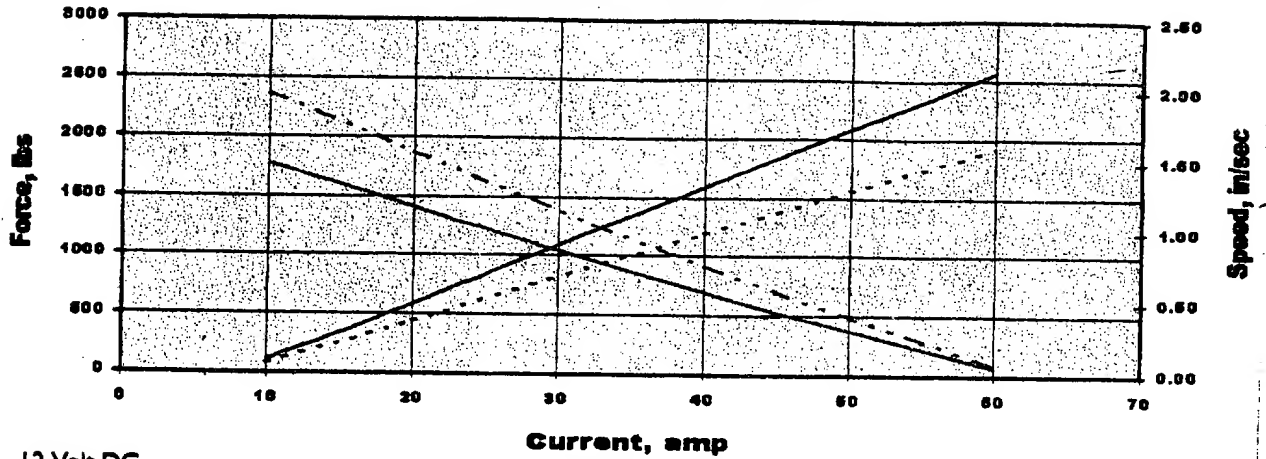


FIG 20

Actuator 125-35

Force, Speed, Current draw



ACTUATOR 125-035 WEIGHT

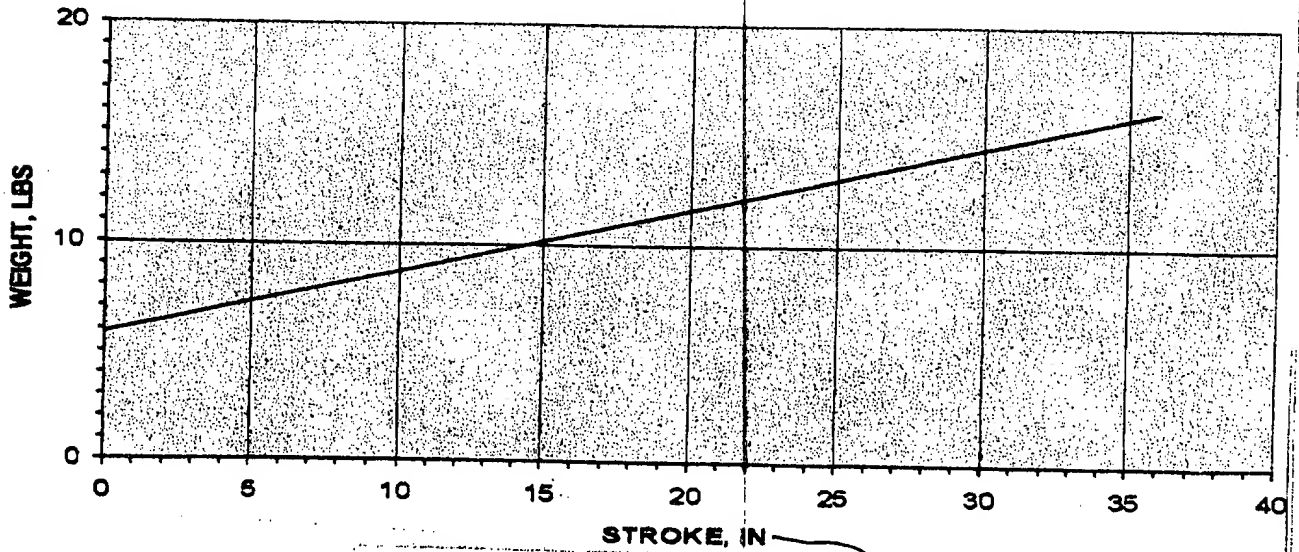


FIG 22

80

FOR 240" T609T660

FIG 21